

REMARKS:

Office Action

In the Office Action mailed October 21, 2004, claims 1-4 and 6-7 were rejected under 35 U.S.C. 102(a) as being anticipated by Howarter et al. Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over the same reference. The Examiner noted in the Office Action that Howarter was just one of the relevant references and requested that Applicants review all of the cited references in preparing a response to the Office Action.

The Present Invention

In the above amendment, Applicants have cancelled all of the original claims, claims 1-7, and added new claims 8-25. Accordingly, the remarks noted below regarding the present invention concern these newly added claims.

There are three new independent claims in the newly added claims, claims 8, 17 and 24. Claims 8 and 17 are directed to the first aspect of the present invention which addresses the issue of a time delay incurred in obtaining a network connection in a settlement system, in which claim 8 is directed to a method implemented in a wireless communication unit used in the settlement system and claim 17 is directed to a settlement terminal used in the system. Claim 24 is directed to the second aspect of the present invention which provides a proxy computer used in the settlement system.

Applicants first generalize the first aspect of the present invention. The present invention is intended to be implemented in a credit or debit settlement system where a purchase of a good or service is settled on-line by a financial institution. The system comprises settlement terminals and financial institutions where a settlement terminal located at a point of sale collects settlement information such as data recorded in a financial medium like a credit card or a debit card, and the collected settlement data is transferred from the settlement terminal to one of the financial institutions, a designated institute, for the settlement purpose.

There exist between the settlement terminal and the designated financial institution, a wireless communication network and a proxy computer. The wireless communication network allows the settlement terminal to wirelessly access the network. For that purpose, the settlement terminal is equipped with a wireless communication

unit, which is, for instance, an external wireless communication device as discussed in the embodiment of the present invention. The proxy computer is connected to the wireless communication network and functions as a gateway switch to selectively connect itself to the multiple financial institutions. In this settlement system, therefore, settlement information is collected at the settlement terminal, which is then transmitted to the communication network and then to the proxy computer, which directs the information to the designated financial institution.

The operations performed in the above settlement system involve authentication or verification processes at two locations. The first verification process is performed at the wireless communication network. Before transmitting the settlement information, the wireless communication unit of the settlement terminal has to establish connection with the wireless communication network. In response to a connection request from the wireless communication unit, the communication network performs verification of the wireless communication unit to determine if it can legitimately access the network.

The second verification process is performed at the proxy computer. After the wireless communication unit of the settlement terminal is verified, a verification request is transmitted from the settlement terminal via the communication network to the proxy computer. In response to a verification request, the proxy computer verifies the settlement terminal.

Only after both the wireless communication unit and the settlement terminal are verified at the communication network and at the proxy computer, respectively, can the settlement information be sent from the settlement terminal to the designated financial institution. Please note that the individual who uses the card or the card information is thereafter checked at the designated financial institution.

As apparent to those skilled in the art, the two verification processes performed at the two different locations could cause a time delay before the settlement information is ready to be sent to the designated financial institution. The time delay can be significant if the settlement terminal is to be connected to the communication network through a satellite.

Given the time delay to be incurred in the two verification processes performed at the communication network and the proxy computer, the present invention initiates

connection to the communication network and the proxy computer during a process of collecting settlement information, not after the settlement information has been collected. Thus, in the present information, while the connection process to the communication network and the proxy computer is in progress, the settlement information is collected at the settlement terminal.

To realize the idea of the present invention, claim 8 recites a method implemented in a wireless communication unit. The method comprises the step of, while the communication path is being established, during which time both the wireless communication unit and the settlement terminal are verified, allowing the settlement terminal to continue the process of collecting the settlement information. Claim 17 recites a settlement terminal in which the user interface control activates the communication connection control to initiate establishing the communication path with the proxy computer during the process of collecting the settlement information and continues the process of collecting the settlement information while the communication connection control is establishing the communication path with the proxy computer, during which time both the settlement terminal and the wireless communication unit are verified.

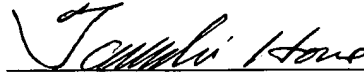
Claim 24 is directed to the second aspect of the present invention and recites a proxy computer which functions as a gateway to multiple financial institutions. Basically, the proxy computer is connected to the communication network and verifies the settlement terminal after the communication network successfully verifies the communication unit of the settlement terminal. After verifying the settlement terminal, the proxy computer relays the settlement information to the designated financial institution.

Howarter et al. (U.S. Patent No. 5,280,625)

There is nothing in Howarter that discloses or teaches the inventions recited in claim 8 and 17. As shown in Fig. 6 and 7 and the associated descriptions in the specification, a network connection will not be initiated in Howarter until all the settlement data to be transmitted is collected. Nor does Howarter disclose or teach the invention recited in claim 24.

The other references cited in the Office Action are also silent about the inventions recited in claims 8, 17 and 24. Therefore, the inventions recited in these claims should be allowable over the cited references.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Tadashi Horie", is written over a horizontal line.

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